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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,661	05/17/2006	Michael Prosser	26786-520-NATL	9367
35437 7590 12/23/2008 MINTZ LEVIN COHN FERRIS GLOVSKY & POPEO ONE FINANCIAL CENTER BOSTON, MA 02111				
EXAMINER				
YANG, ANDREW				
ART UNIT		PAPER NUMBER		
3775				
MAIL DATE		DELIVERY MODE		
12/23/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,661

Applicant(s)

PROSSER, MICHAEL

Examiner

ANDREW YANG

Art Unit

3775

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-16 and 18-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-16 and 18-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This action is in response to Applicant's amendment filed on 9/19/2008.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3, 5-16, and 18-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Newly amended independent claims present the limitation of the spacer in a spaced arrangement with the first and second cage members. It is not disclosed in the specifications what is meant by the spaced arrangement. Review of the drawings also does not convey a spaced arrangement. It appears in the figures, specifically figure 4, that the spacer and the first and second cage members are in contact with each other.

Claim Rejections - 35 USC § 102

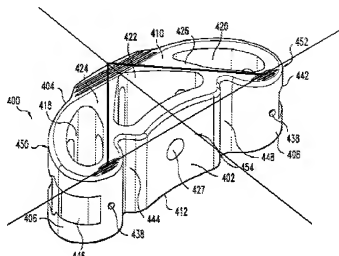
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 6, 7, 8-10, 12-16, 18, 19, 20, 21, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by White et al. (U.S. Publication No. 2004/0073314).

White et al. discloses a spinal cage assembly 400 made of a biologically inert material (Paragraph 53) in the shape of a rigid annular cage (Figure 15). With further reference to Figure 15, the cage has upper and lower surfaces extending about the perimeter of the cage and an annular sidewall extending therebetween. Traverse inner wall 424, 426 extends across the cage. Grooves 414, 415, 416 are formed on the perimeter surfaces that form raised projecting ridges and a plurality of openings 428, 430, 431 are formed on the annular sidewall. Further more, the raised ridges are angularly offset. The ridges on the anterior side (defined by wall 404) are disposed on a median axis extending through the implant. The ridges on the posterior side (along wall 402) are offset from the median axis at an angle from the ridges at the anterior side of the implant (See Figure Below).



A pair of axially aligned openings 418, 420 extend through the cage 400 that can be packed with bone growth material (Paragraph 92). The perimeter surfaces defining openings 418, 420 and is considered that the perimeter surfaces them self define indexing members since they cooperate with pins 316-319 on the spacing element 310 such that the pins 316-319 come in contact with a perimeter surface of cage 400. Spacing element 310 axially aligning and securing cage assembly 400 to an identical second cage assembly 401 (Figure 13). The spacing element has an annular configuration (Figure 13) and a transverse portion with resilient attachment members 320, 321 on opposite ends of the spacer that resist axial movement when secured to the cage assemblies (Paragraph 89). Furthermore, it is considered that the cage assemblies and spacing element form a substantially half-moon shape or kidney shape (Figures 13-21).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. Publication No. 2004/0073314).

White et al. discloses the claimed invention except for a pair of resilient members on opposite sides of the spacer element. It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of White et al with a pair of resilient members on opposite sides of the spacer element, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. Publication No. 2004/0073314) in view of Brantigan (U.S. Patent No. 5192327).

White et al. disclose the invention as claimed except for the cage assembly having an oval configuration. Brantigan teaches a spinal cage assembly with an oval shape to conform with the general outline perimeter of the vertebrae (Column 2, Lines 1-4). It would have been obvious to one skilled in the art at the time the invention was made to construct the device of White et al. with an oval shape in view of Brantigan so

that the device would have a shape that conforms to the general outline perimeter of the vertebrae.

Claims 1, 3, 16, and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berry et al. (U.S. Patent No. 7309358) in view of Brantigan (U.S. Patent No. 5192327).

Berry et al. discloses a cage assembly 510 having a rigid cage 530 formed of a biologically inert material (Column 4, Lines 35-40). The cage 530 has an upper surface 533 and lower surface 535 and an annular side wall 532 extends between the surfaces. A plurality of raised ridges 531, 539 extends from the upper and lower surfaces 533, 535. The ridges 531 and ridges 539 are angularly offset from each other (the upper ridges point one way and the lower ridges point the other (Figures 24-26), the perimeter surface defines a plurality of indexing members in the form of holes in which members 560 and 550 extend. The cage assembly 510 includes a spacing element 512 which has a pair of similar holes that cooperate with the holes of the cage 530 for axially aligning the spacing element and the cage (Column 15, Lines 43-51). A plurality of spaced apertures 537 are in the side wall. The spacing element has an axial dimension which is less than an axial dimension of the annular side wall of the cage 530 (Figure 25).

Berry et al. fails to disclose the device having a pair of axially extending openings through the cage. Brantigan teaches an spinal cage 31 having an annular wall and a transverse wall 32 extending there across and forming two axially extending apertures (Figure 6). The apertures are for receiving bone graft material (Column 5, Lines 36-44).

It would have been obvious to one skilled in the art to construct the device of Berry et al. with a transverse wall extending across the implant to form a pair of axially extending apertures in view of Brantigan in order to form apertures for receiving bone graft material while also increasing the strength of the implant.

Response to Arguments

In response to Applicant's argument that White fails to disclose flat upper and lower surfaces on the spacer member, the Examiner respectfully disagrees. It is considered that at least a portion of upper and lower surfaces of the spacer is flat.

In response to Applicant's argument that White fails to disclose the spacer configured to be disposed in a spaced arrangement with the first and second cage, the Examiner respectfully disagrees. The spacer is capable of being in a spaced arrangement with the first and second cage as seen in figure 14. Furthermore, as noted in the 35 U.S.C. 112, first paragraph rejection, it is not disclosed that the spacer and cages of the current application are in a spaced arrangement. As best seen in the figures there are spaces between the ridges of cages and the spacer implant, however the spacer is in contact with the cages. It is also noted that White et al. has embodiments (Figure 22) that have such an arrangement.

In response to Applicant's argument regarding claim 11, White et al. discloses a first resilient member 320 on a transverse portion on a top surface and a second resilient member 321 on a transverse portion on a bottom surface of the spacer. As stated duplicating a part is obvious to one skilled in the art and thus having two resilient

members 320 and two resilient members 321 on each side of the transverse member would have been obvious.

In response to Applicant's argument that Berry fails to disclose the spacer to have flat upper and lower surfaces and configured to be in a spaced arrangement with the first and second cages, the Examiner respectfully disagrees. Similarly to White et al. the upper and lower surfaces have portions that are flat and do not include raised ridges (Figures 13 and 15). Furthermore, the spacer is also capable of being in a spaced relation with first and second cages (Figures 13 and 15).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW YANG whose telephone number is (571)272-3472. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Yang/
Examiner, Art Unit 3775
12/19/2008
/Eduardo C. Robert/
Supervisory Patent Examiner, Art Unit 3733